



[3410-11- P]

DEPARTMENT OF AGRICULTURE

Forest Service

Shasta-Trinity National Forest; California; Highway 89 Safety Enhancement and Forest Ecosystem Restoration Project

AGENCY: Forest Service, USDA.

ACTION: Notice of intent to prepare an environmental impact statement.

SUMMARY: With the Highway 89 Safety Enhancement and Forest Ecosystem Restoration Project (Highway 89 project), the Shasta-Trinity National Forest (Forest) is proposing to improve public safety along California State Highway 89 (Highway 89) and restore forest health throughout approximately 13,514 acres of forest by:

Addressing infrastructure needs (National Forest System roads and helispot, developed recreation areas);

Reducing the risk of uncharacteristic wildfire by reducing fuel loads, thinning overstocked stands, and gradually returning fire to the landscape both along the highway corridor and within the surrounding forest; and

Restoring resilient forest structures, patterns, and disturbance regimes by reducing stand densities, retaining and releasing larger trees, increasing under-represented forest vegetation such as aspen and oak, and providing forest structural diversity across the

landscape.

The 13,514 acre project area is located in Siskiyou County, California, north and south of Highway 89, from near the junction of Highway 89 with Interstate 5 (Mount Shasta, California area), east to the Cattle Camp turnoff (Forest Roads 43N19 and 40N44). The project boundary extends up to 2.5 miles from the highway and is bounded by the McCloud River, private property, and major Forest roads. The large landscape selected encompasses both complex natural forest stands that retain more spatial heterogeneity combined with simplified forest stands that are typically homogeneous in structure and include uniform stands of small and medium-sized trees within plantations. Using logical landscape boundaries, including the river, private property, roads, and other restored landscapes (Algoma Vegetation Management Project) fosters restoration of resilient forest structures, patterns, and disturbance regimes which are lacking.

The legal location is: Township 39 North, Range 1 West, Sections 2-10, 17-18; Township 39 North, Range 2 West, Sections 1-3, 12; Township 40 North, Range 1 West, Sections 27, 28, 31-34; Township 40 North, Range 2 West, Sections 34-36; Township 40 North, Range 3 West, Sections 32-33; Township 40 North, Range 4 West, Sections 22-26, 34, Mt. Diablo Meridian. Elevations range from 3,200 to 4,400 feet.

Project treatments include thinning along the Highway 89 corridor, thinning in plantations and in natural forest stands throughout the 13,514 acres, hazard tree removal, prescribed burning, Forest road management, and developing a helispot.

DATES: Comments concerning this scope of the analysis must be received by [insert 30 days from date of publication in the **Federal Register**]. The draft environmental impact statement is expected in December, 2015 and the final environmental impact statement is

expected in May 2016.

ADDRESSES: Send written comments to Carolyn Napper, District Ranger, Shasta-McCloud Management Unit, 204 W. Alma St., Mt. Shasta, California 96067, Attn. Heather McRae. Comments may also be sent via e-mail to: comments-pacificsw-shasta-trinity-mtshasta-mccloud@fs.fed.us , or via facsimile to (530) 926-5120.

FOR FURTHER INFORMATION CONTACT: Heather McRae, Fuels Specialist, at (530) 964-3770 or hmcrae@fs.fed.us, or Ann Glubczynski, Natural Resource Planner, at (530) 964-3717 or aglubczynski@fs.fed.us.

Individuals who use telecommunication devices for the deaf (TDD) may call the Federal Information Relay Service (FIRS) at 1-800-877-8339 between 8 a.m. and 8 p.m., Eastern Time, Monday through Friday.

SUPPLEMENTARY INFORMATION:

The project purpose and need for action is generated by looking at the difference between the existing conditions and the desired conditions [as identified in the Shasta-Trinity National Forest Land Resource Management Plan (Forest Plan)] in the project area.

Highway 89 Corridor

Existing Conditions: The Highway 89 corridor is defined as the area that extends up to 275 feet out from the edge of the pavement on both sides of the two-lane highway. This corridor is composed of three sections between Interstate 5 (I-5) and Cattle Camp (Forest roads 43N19 and 40N44), for a total of 10.2 miles. The California Department of Transportation (CalTrans) right of way (ROW) along the highway varies from 80 to 200 feet from the roadway centerline through the project area.

The vegetation along portions of the Highway 89 corridor includes tall, dense forest stands that are close to the road shoulder and cast shadows on the pavement. During the winter months, the shade on the roadway keeps snow and ice from melting for up to several weeks following a storm. Trees immediately adjacent to the highway with overhanging branches can drop snow loads onto the highway and passing vehicles. These branches collect snow, until the snow becomes too heavy, and drops onto the roadway. Snow from overhanging branches has been known to hit the windshields of vehicles as it falls, even breaking some windshields. In many areas, the trees and brush are very dense, growing within the ROW, which makes snow removal from the paved traffic lanes difficult.

During the entire year, vegetation along the highway also limits visibility for drivers to see wildlife moving from the forest onto the highway. Numerous animal and vehicle collisions have occurred along the highway in the project area, because drivers are not able to see animals entering the roadway until they are so close that it is difficult to stop or even slow down.

Dense vegetation, tree mortality, and large amounts of dead vegetation and debris along Highway 89 have increased the likelihood that a fire starting or burning along the highway could spread quickly to threaten surrounding forests and communities, or allow for a fire to cross the highway, and be difficult to control during dry summer conditions. Highway 89 also serves as an evacuation route for residents to leave and emergency personnel to access the area.

Desired Future Conditions: Sunlight is able to reach the Highway 89 road surface during winter months, enabling snow and ice to melt from the roadway more

quickly. There are fewer trees with branches hanging over Highway 89.

Drivers along Highway 89 have adequate sight distance and an open view of wildlife entering the roadway to respond as necessary.

Sufficient gaps in vegetation exist along Highway 89 to allow for efficient snow removal during heavy snowfalls.

Vegetation conditions and predicted fire behavior along Highway 89 are such that a wildfire during summer months is less likely to spread along or across the highway, is less likely to threaten surrounding forests and communities, and would not limit access for firefighters, or egress for citizens.

Forest Roads, Powerline Corridors and Helispot

Existing Conditions: There are many Forest roads within the project area. The conditions of these roads vary, from well maintained to nearly undrivable. Brush and trees encroach on some roadways making them undrivable or difficult to drive on and therefore unsafe for users. Many Forest roads are used frequently by Forest visitors to access areas where they recreate, or for recreation activities such as biking, horse-back riding, or driving off highway vehicles (OHVs). Some of these roads have reduced access for recreational opportunities due to their poor condition or being overgrown.

Some roads that are open are not heavily used, nor are they needed for resource management activities. There are many user-created routes in the project area that are not part of the Forest transportation system (unauthorized routes) and not needed for resource management activities. But several Forest Transportation System roads and one unauthorized route in the project area that are currently closed or inaccessible do provide critical access for resource management activities.

Powerlines crossing through the project area are maintained by the power companies, who currently remove vegetation within the power line corridor ROW. However, in some areas, such as near the community of Mount Shasta, dense forest stands on NFS lands are growing right up to the powerline corridors. The safety of firefighters responding to a fire near these powerlines is at risk. There is no break in the vegetation sufficient to safely put firefighters near the powerlines during a wildfire to protect them.

There is an existing helispot located behind the Ash Creek Guard Station where trees are obstructing the take-off and landing paths for helicopters. These trees are part of a seed orchard of specially bred trees. Cutting these trees would result in the loss of valuable genetic research. The effectiveness of the helispot is increasingly hazardous due to the height of adjacent trees, and we expect that within 10 years the helispot will no longer be usable. There is currently no other suitable landing spot for helicopters in the general vicinity.

Desired Future Conditions: Roads on the Forest transportation system that are needed for current and future resource management or recreation access have been maintained to provide safe access for forest management and recreation activities, including: OHV riding, horseback riding, and biking (activities the public has indicated are important to them). Forest transportation system roads used for Forest resource management are closed when not in use. Unauthorized routes that do not meet management needs are decommissioned and become revegetated. Forest system roads and trails that access rivers and streams for water-oriented recreation activities are improved, and roads and trails to hunting, fishing and wildlife viewing areas are

maintained at an appropriate maintenance level.

Vegetation on both sides of the powerline ROW is managed to reduce potential impacts during wildfire. Overstory, ladder, and surface fuels would be reduced such that the potential for crown fire during summer conditions is unlikely. Anticipated fire behavior during summer conditions is such that firefighters can safely manage a fire in the vicinity of the powerlines.

A new helispot is located east of McCloud, with sufficient clearance to allow a medical evacuation (medevac) helicopter to land and transport a patient. This helispot is also available to support fire operations.

Developed Recreation Areas

Existing Conditions: Developed recreation areas within the project boundary include those within the McCloud River Loop area, specifically: Fowlers, Cattle Camp and Camp 4 Campgrounds, Lower, Middle, and Upper Falls picnic areas, Lakin Dam and Cattle Camp Swimming Hole day use sites, the McCloud River Trail, and the Vista Point along Highway 89.

Many of the forest stands in the recreation areas are overly dense and at risk of density-related mortality. Evidence of root disease and insect damage has been observed, and high fuel loading from mortality is present throughout the area, increasing the likelihood of undesirable effects in the event of a wildfire.

In the Cattle Camp Campground, there has been an increase in tree mortality over the past five years. Within the developed campgrounds and other recreation sites in the McCloud River corridor, hazard trees continue to be a concern for public safety. Excessive hazardous fuel accumulations can increase the potential for intense wildfires.

Vegetation is blocking views of the McCloud River from many of the developed recreation sites such as Fowlers Campground and views of Mount Shasta from the Vista Point.

Desired Future Conditions: Hazardous fuels are reduced to the standards under the Forest Plan, allowing fire managers to effectively protect life, property, and natural resources during a wildfire. Hazard trees in developed recreation sites, along trails, and in campgrounds are removed for forest health and public safety. Forest stands within and surrounding campgrounds are healthy. Opportunities exist to view the McCloud River within the developed recreation sites and trails, and to view Mount Shasta from the Vista Point on Highway 89.

Wildland Urban Interface Defense Zones (defined as areas up to ¼ mile from structures)

Existing Conditions: Fuels have been reduced in a portion of the Wildland Urban Interface (WUI) in recent years around the communities of McCloud and Mount Shasta. However, there are numerous forest stands and brushy areas where fuels have not been reduced. Some of the treated stands are still in a condition that could sustain a wildfire with potential impacts to homes and private property, especially in the WUI defense zones near Mount Shasta and on Snowman's Hill.

Desired Future Conditions: In the WUI defense zones around the community of Mt. Shasta and Snowman's Hill, fuel loading has been managed and reduced to the Forest Plan standards. Vegetation is managed to achieve 4-foot flame lengths or less during 97th percentile weather conditions. There is sufficient ingress/egress clearance and limited chances of crown fire.

Forest Ecosystem Health

Existing Conditions: The project area is a combination of plantations and natural (non-plantation) forest stands. The primarily ponderosa pine plantations range in age from less than 10 years to over 70 years. Some of the plantations have had recent treatments (brush mastication, thinning, pruning). Others have not and are overstocked, with interlocking tree crowns and decadent woody shrubs, making them vulnerable to mortality from insects and fire. Mortality has occurred within some of the plantations, resulting in pockets of dead trees. The plantations lack age, structure, and species diversity, and some were subject to windrowing (a site preparation method which resulted in piles of topsoil) and mechanical planting in the past.

Most of the natural forest stands are overly dense and at risk of density-related mortality. Mortality pockets are starting to occur across the project area. Root diseases, such as black stain and Heterobasidion, along with evidence of insect damage, have been observed in many locations. Dense and dying knobcone pine stands are far outside of their natural range of variation both in overall numbers as well as percent composition and are creating unnaturally large fuel loads.

Windrows were created in several plantations prior to planting as a way to remove competing vegetation. Windrowing reduced overall soil productivity by scalping and piling nutrient rich topsoil, which displaced nutrients and soil organic matter in the piles and left poorer quality subsoil exposed for tree planting.

Areas dominated by bitterbrush, individual black oak trees, and stands of aspen and oak (important for vegetative diversity and wildlife habitat) are being encroached on by conifers, which are shading out these shrubs/trees. Due to a lack of disturbance, forest

stands have followed a process of succession in which conifers grow taller than aspen and oak, blocking the sunlight these species need. Conifers are competing for soil nutrients and water with the other tree and shrub species. Aspen stands are declining at a rapid rate due to past management such as fire suppression, timber management (removing aspen and planting conifers), livestock grazing and site conversion. Bitterbrush stands are mostly even-aged and decadent with limited regeneration or new growth, and there are encroaching conifers at the edges of and within the bitterbrush stands.

Some Riparian Reserve areas located within the McCloud River corridor (inner gorge) contain dense pockets of young conifers encroaching on the riparian vegetation as well as dead and dying trees. Some of these areas are adjacent to trails, such as the McCloud River Trail, and recreation sites.

Effective fire suppression in the last century has greatly reduced the total area burned when compared to pre-historic levels. Approximately 73% of the project area historically experienced a high frequency (0-35 year return interval), low to mixed severity fire regime. Approximately 6% of the project area historically experienced a high frequency (0-35 year return interval), high severity fire regime, while 6% of the project area evolved under a low frequency (35-100 year) high severity fire regime (non-burnable area accounts for the remaining 15%).

Based on the historic fire return intervals and fire history data, the project area is outside the historical range for fire occurrence. Approximately 80% of the project area is designated as a high departure from the historical fire return interval range. These areas have missed multiple fire return intervals. The remaining 4% of burnable area is at a moderate departure, missing one or more return intervals. This departure has resulted in

changes to vegetation characteristics (species composition, structural stages, stand age, canopy closure, and mosaic pattern); fuel composition; fire frequency, severity, and pattern; and insect and disease activity. The risk of losing key ecosystem components is high.

Desired Future Conditions: Plantations with trees primarily 10 inches diameter at breast height (dbh) or greater have a more multi-aged structure with variable sizes and spacing, and plantations with trees primarily less than 10 inches dbh are moving toward stands with larger sized trees. Natural stands have densities at levels that improve and protect forest health and vigor. The stands have structural diversity with varied species, multiple canopy layers, other types of vegetation, and appropriate levels of coarse woody debris and snags. Plantations and natural stands are resilient to epidemic insect or disease attack. Knobcone pine dominated stands more closely resemble their historic conditions of other species such as ponderosa pine, incense cedar and white fir mixed in with the knobcone.

In plantations with windrows, the windrows have been respread, redistributing the topsoil and nutrients throughout the plantation. Overall soil quality and productivity are improved in the plantations providing more nutrients to the trees.

Hardwoods, especially oaks and aspen, remain a healthy and vigorous component of forest stands where they are naturally located. In hardwood-dominated stands, there are fewer conifers competing for resources (sunlight, nutrients, water) with the hardwoods. Bitterbrush stands have a mix of age and condition classes and also have limited competition from conifers. In riparian areas, the species composition and structural diversity of the native vegetation maintain a healthy riparian ecosystem,

without excess competition for resources from conifers.

All stands and vegetation types experience fires at intervals that are historic to the area, have appropriate coarse woody debris and snag levels, but do not have excess fuel loads. Wildfires that occur within the project area during dry summer conditions are beneficial to the ecosystem, as occurred historically.

Purpose and Need

For the Highway 89 corridor, there is a need to:

- 1) Cut vegetation throughout the highway corridor, so that the forest canopy is more open, allowing increased winter sunlight on the roadway and faster melting of snow and ice on the pavement.
- 2) Manage vegetation along the highway for increased driver sight distance to reduce the risk of vehicle-wildlife collisions.
- 3) Remove vegetation along the road shoulders for space to place plowed/blown snow during storms.
- 4) Reduce fuels along Highway 89 to allow for a more effective fire response during summer conditions.

For Forest roads, powerline corridors and helispot facilities, there is a need:

- 1) To ensure that roads needed for Forest resource management are maintained or repaired to meet Forest standards and closed when not in use. Roads needed for recreation access are maintained and repaired to meet Forest standards and public safety needs. Roads not needed for Forest management or recreation access are decommissioned. Roads are added or removed from the Forest transportation system as appropriate.

2) For a helispot east of McCloud to facilitate a medical evacuation and an appropriate fire management response.

3) To reduce hazardous fuels levels (surface fuel loadings, ladder fuels, and vegetation densities) along powerlines, to increase firefighter safety during a wildfire.

For developed recreation areas, there is a need to:

1) Increase visitor safety from hazard trees and the risk of wildfires, including along the McCloud River Trail, and improve access within and surrounding the developed recreation sites.

2) Improve the views throughout the project area, including Mt. Shasta, the McCloud River, and the natural landscape.

For the WUI defense zones, there is a need to:

1) Reduce hazardous fuel levels (surface fuel loadings, ladder fuels, and vegetation densities) within the defense zones to achieve 4-foot flame lengths or less during 97th percentile weather conditions.

For forest and ecosystem health, there is a need to:

1) Increase the diversity of species composition, age, and structure in plantations and natural forest stands.

2) Increase resilience to fire, insects and disease in all stands.

3) Reduce competition by conifers in hardwood stands, bitterbrush areas, and riparian vegetation to ensure their growth and vigor.

4) Respread existing windrowed topsoil in several plantations to redistribute soil nutrients and organic matter and improve overall soil productivity.

5) Restore the natural role of fire in the ecosystem to facilitate vegetative and

other fire-related processes.

Proposed Alternative 3

The project area was divided into treatment areas based on vegetation type, use, and areas with special conditions. Activities include Forest road management, and construction of a new helispot for medical air evacuation and firefighting support. Silviculture treatments such as tree thinning, sanitation thinning and hazard tree removal, along with fuels treatments such as underburning, hand or machine piling, and mastication will be implemented to improve resilience and health in forest stands, and improve safety along the Highway 89 corridor, in WUI defense zones and in developed recreation areas.

A complete description of alternative 3, including resource protection measures and treatment maps, can be found in the Highway 89 Safety Enhancement and Forest Ecosystem Restoration Project Scoping Document on the Shasta-Trinity National Forest Website at <http://www.fs.usda.gov/project/?project=43770>.

In summary, to meet the purpose and need the following treatments have been identified (all acreages and miles are approximate, some treatments will overlap, occurring in the same areas).

Thinning (variable density across all diameter classes, including understory vegetation) of trees will be implemented throughout the project area to reduce relative stand densities and meet other objectives. In some areas thinning will create small gaps/openings in the canopy (such as the WUI defense zone). In other areas, clumps of trees with wildlife sheltering structure will be retained.

Sanitation (removing dead and dying clumps of trees) will be implemented in

areas of disease, insect damage, and ongoing mortality. Group selections will be installed in larger areas of mortality to try and slow rate of progression.

Hazard tree removal will occur throughout the project area. Encroaching conifers will be removed to release riparian vegetation along the McCloud River Corridor and from bitterbrush fields.

These treatments will occur in:

- 3,376 acres of plantations with trees 10 inches or greater,
- 617 acres of plantations with trees less than 10 inches dbh,
- 1,241 acres of mixed conifer natural stands,
- 3,794 acres of pine dominated natural stands,
- 653 acres of knobcone pine dominated stands,
- 212 acres of the McCloud River Corridor area,
- 212 acres of the Big Canyon Creek area,
- 61 acres of bitterbrush fields, and
- 16 acres of black oak stands.

Fuels treatments will include mastication, machine and hand piling and pile burning, and thinning for fuel reduction. The entire project area (with the exception of specific sensitive areas) will be underburned.

The treatments will yield renewable forest by-products of both sawtimber (logs) and biomass (chips), firewood, and special forest products. Treatments will be accomplished through a variety of methods including service contracts, force account, commercial timber harvest, and stewardship contracts.

In addition to vegetation treatments, a 550-foot x 550-foot helispot will be

constructed across the highway from the Ash Creek Work Station (total area of approximately 14 acres). Forest road management activities will include 78 miles of road maintenance, 2.8 miles of reconstruction, 4 miles of new temporary road construction, 7.9 miles road/route decommissioning, 11.25 miles of road closures, 3 miles of road openings, and 0.25 miles of road (access to the new helispot) added to the Forest Transportation System.

Highway 89 is designated as a Forest Service Scenic Byway. Visual quality objectives for the highway corridor through National Forest land call for retention, meaning human activities are not visually evident to the casual forest visitor. Trees will be removed along the highway in view of the roadway and the resulting changes in vegetation will be visually evident. Depending on the results of the scenery analysis, a Forest Plan amendment may be required for the project activities along the Highway 89 corridor.

Responsible Official

Forest Supervisor, Shasta-Trinity National Forest.

Nature of Decision To Be Made

The Forest Supervisor will decide whether to implement the proposed alternative 3, take an alternative action that meets the purpose and need, or take no action.

Permits or Licenses Required

A permit would be required from the State of California prior to burning piles. The appropriate regulatory agencies will be consulted regarding national or state required permits associated with roads used during project implementation. All required permits will be obtained prior to implementation.

Scoping Process

This notice of intent initiates the scoping process, which guides the development of the environmental impact statement.

Early in the project development process, meetings were held with local stakeholders, including representatives from the California Department of Transportation, the local timber industry and American Forest Resources Council, local fire safe and watershed councils, environmental and citizens' organizations, and the Pit River Tribe. It was anticipated at that time that an environmental assessment would be written for the project.

The project was originally scoped in June, 2014. The project was posted on the Forest Schedule of Proposed Actions (SOPA) On June 30, 2014. The Legal Notice was published in the newspaper of record (Record Searchlight, Redding, California) on June 30, 2014. A notice was also published in the Mount Shasta Herald (Mount Shasta, California). A scoping letter was mailed or emailed to 168 individuals, organizations, and government agencies. The scoping document and was posted to the Shasta-Trinity National Forest website. The scoping period was 30 days. Comments were received from nine individuals, organizations, and

agencies.

In addition to the written request for comments, the scoping phase included two public meetings and field trips for interested members of the public and other government agencies. A public meeting/field trip was held on October 4, 2014 with 11 attendees. A field trip with representatives of the U.S. Fish and Wildlife Service was held on October 31, 2014. The comments from the scoping period and public meetings/field trips have become part of the Highway 89 Safety Enhancement and Forest Ecosystem Restoration Project record, and were considered when developing this new alternative (alternative 3), which is referred to as alternative 3 in this notice of intent.

Based on the public involvement since scoping as well as new information, the line officer has chosen to evaluate and document project effects on the environment in an environmental impact statement.

For the scoping period initiated by this notice of intent, it is important that reviewers provide their comments at such times and in such manner that they are useful to the agency's preparation of the environmental impact statement. Therefore, comments should be provided prior to the close of the comment period and should clearly articulate the reviewer's concerns and contentions. Comments submitted during the first scoping period will continue to be considered and need not be resubmitted. This project would implement the Forest Plan and is subject to 36 CFR 218 subparts A and B. All persons who provided comment in past designated comment periods associated with this project will have standing to object on comment issues previously provided however, those interested in the project are encouraged to review the scoping package and provide comments. Please note that to object per 36 CFR 218, a commenter must have provided specific written comments regarding the proposed

project or activity during scoping or another designated opportunity for public comment (in other words objection issues must be based on previously submitted specific written comments except for issues that arose after the opportunities for comment). Please refer to 36 CFR 218.

Comments received in response to this solicitation, including names and addresses of those who comment, will be part of the public record for this proposed action. Comments submitted anonymously will be accepted and considered, however anonymous comments will not provide the Agency with the ability to provide the respondent with subsequent environmental documents and may preclude their ability to object.

Dated: September 8, 2015.

/s/ David R. Myers

David R. Myers

Forest Supervisor

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